

# WAWONA

## Town Planning Area

### SPECIFIC PLAN

#### LAND USE POLICIES AND STANDARDS ELEMENT

## FINAL ENVIRONMENTAL IMPACT REPORT



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MARIPOSA COUNTY





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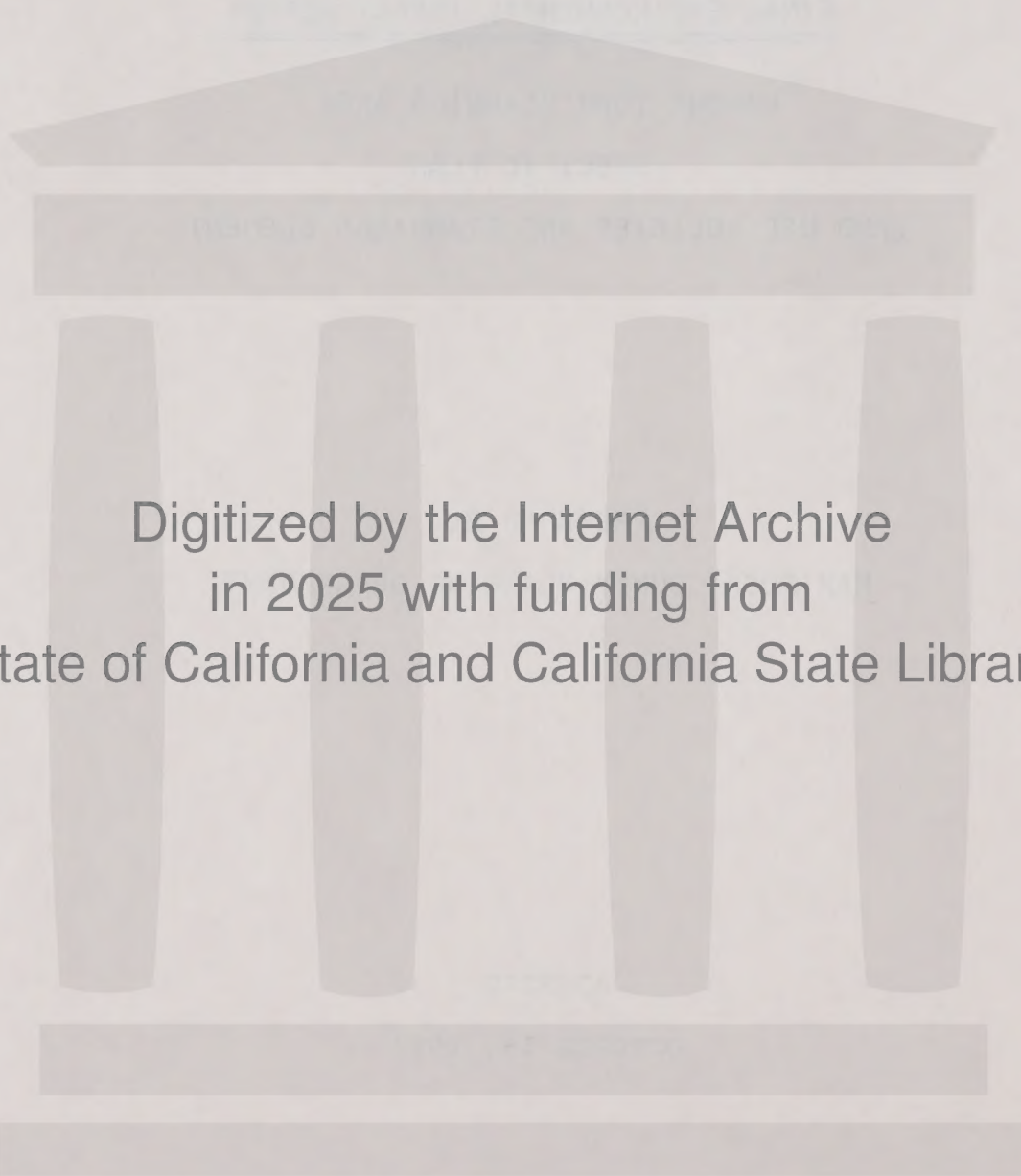
PREPARED BY

MARIPOSA COUNTY PLANNING DEPARTMENT

ADOPTED

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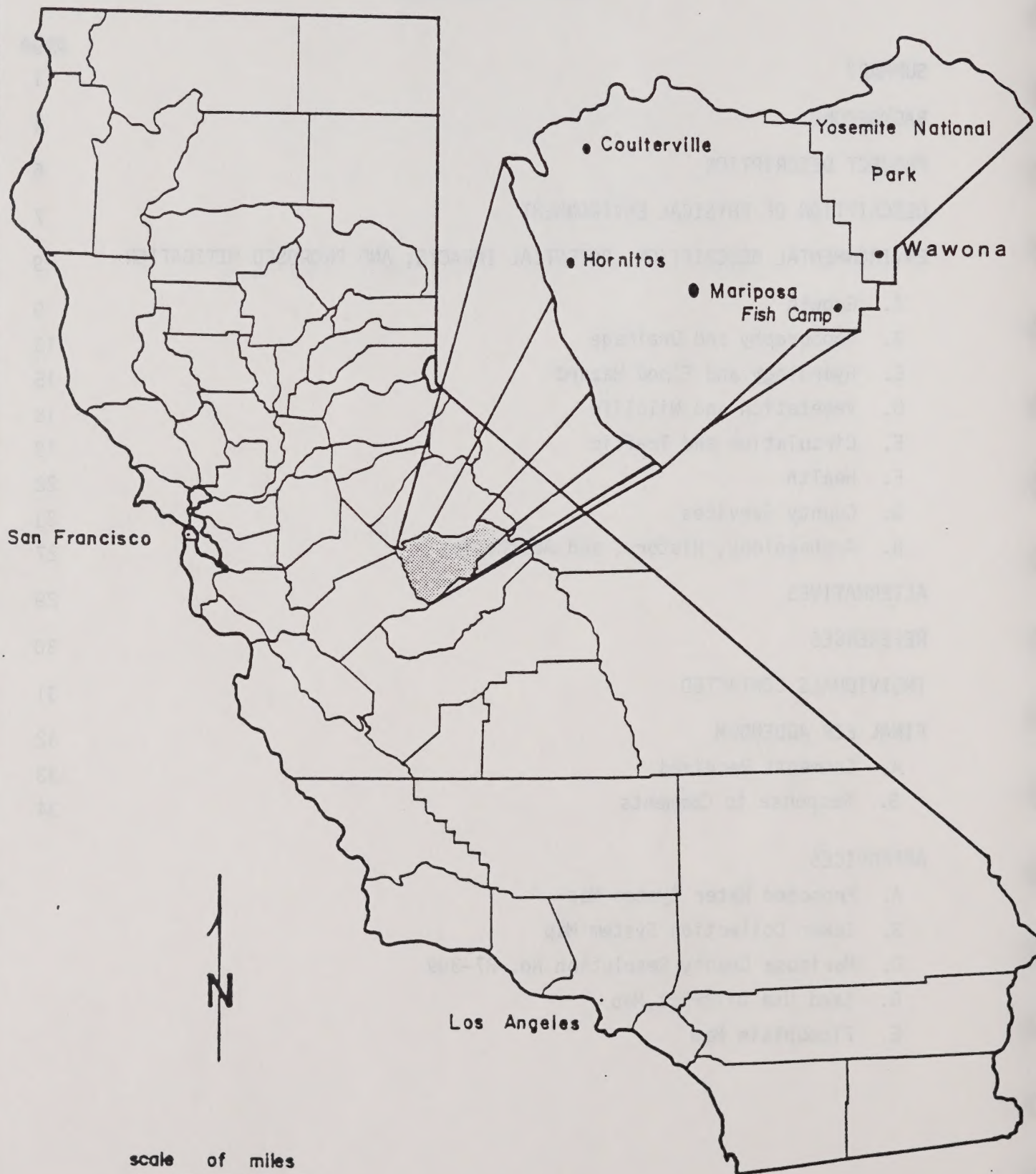
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# LOCATION OF MARIPOSA COUNTY





## SUMMARY

The following section contains a brief description of the plan and a short summary of the impacts and suggested mitigation measures.

### DESCRIPTION

The Land Use Policies and Standards Element of the Wawona Specific Plan is the first stage of a Specific Plan that will eventually include a Circulation Element, Public Facilities Element, and Historic Preservation/Design Element. This Element sets various policies, standards and regulations for land use, new construction, redevelopment, and the division of land in Wawona (Section 35). The Land Use Policies and Standards Element sets minimum parcel size for subdivisions, limits the lot coverage, and limits the number of units that may be constructed on a parcel. It also sets standards relative to minimum lot size and sets minimum front, side and rear yard setbacks for new development. In addition, the element indicates permitted and conditional uses for each land use category and sets standards for transient lodging and home occupations. These standards will be utilized to reduce the impacts expected by the increase in development due to construction of the National Park Service sewer system.

### POTENTIAL IMPACTS AND MITIGATION MEASURES

#### Drainage/Topography

Potential Impacts - The existing drainage system in Wawona is inadequate for the current development. The Land Use Policies and Standards sets limits on lot coverage but does not set policy or standards for development near drainages. It also fails to propose improvements to the existing drainage system.

Mitigation Measures - Developing an overall drainage plan as part of a Public Facilities Element should provide mitigation. This element could delegate minimum building setbacks from drainage channels, recommend changes in location of culverts, and implement erosion control measures if necessary. This element could also identify any landslide hazard areas. The existing County Ordinance, and review of each building permit for adequate on-site/off-site drainage also provides effective mitigation.

#### Hydrology and Flood Hazard

Potential Impacts - According to National Park Service research, Wawona has significant water supply constraints with regards to surface and ground water resources. The Land Use Policies and Standards permits new development which will place increased demands upon the water supply. It also permits transient occupancy of existing dwelling units which may increase the occupancy rate of the many existing summer homes.



The plan does place controls on development by limiting the number of homes that may be developed on one parcel, restricting subdivision and commercial development. The Plan also establishes a Flood Zone where development is significantly restricted.

Mitigation Measures - The development of a Public Facilities Element which will research the feasibility of developing policies and programs should reduce impacts. This could include developing a program to monitor water quality/quantity and the development new community systems.

### Vegetation and Wildlife

Potential Impacts - Although the Land Use Policies and Standards Element places controls on development such as maximum lot coverage and minimum parcel size for new development, it does not prevent redevelopment or destruction of habitat on private lots. This element does not identify sensitive areas nor provide for a system of wildlife corridors to preserve access to the river.

Mitigation Measures - The second phase of the complete plan should research the wildlife needs in Wawona and research the feasibility of developing a system of wildlife corridors throughout Wawona. It should also research the feasibility of developing policies that may benefit wildlife such as policies regarding tree removal and garbage containment and collection.

### Circulation/Traffic

Potential Impacts - The circulation system in Wawona consists of a few narrow paved streets and several narrow private easements. This system is inadequate for the existing development. The anticipated new construction and redevelopment will place added demands upon the narrow streets. The Land Use Policies and Standards Element does not address the need for improved pedestrian paths or wider streets. The plan also does not address the need for emergency fire access (i.e. turn-arounds).

Mitigation Measures - The complete plan (phase 2) will include a Circulation Element which should address all circulation concerns.

### Health

Potential Impacts - The Land Use Policies and Standards Element sets measures for improving the existing situation by indicating that any development permit requiring a well or sewage disposal system be consistent with County Health Department requirement. The Land Use Policies and Standards Element also provides for mandatory sewer hook-up when the system is made available. The element does not develop policies to correct existing health situations such as the existence of outdoor "privies" or failing leachfields, beyond the enforcement tools of existing State law and County Code. Fortunately, the new National Park Service system is expected to remedy the majority of these problems, but the Land Use Policies and Standards Element does not provide for any



mechanism to implement the sewer connection requirement where a property owner cannot afford the connection fees.

Mitigation Measures - The second phase of the Specific Plan (Public Facilities Element) should provide for a policy regarding timely sewer hook-up.

### County Services

Potential Impacts - The Land Use policies and Standards Element sets forth many standards for private development. The enforcement of these standards will take additional staff time from several county offices including Building Division, Health Department, and Planning Department. The Land Use Policies and Standards Element allows a significant level of development/redevelopment to occur on existing private lots in Wawona. This development will increase the number of residents and increase the demand for all County services. The actions of the National Park Service with regard to employee housing and tourist facilities also impacts the demand for County services. The County can not regulate National Park Service activities, thus, the Land Use Policies and Standards Element does not address policies to regulate land use on National Park Service property.

Mitigation Measures - Developing a fee schedule for review of building permits in Wawona should provide mitigation of enforcement impacts. The second phase of the Specific Plan should research the feasibility of reactivating the County Service Area in order to provide for improved efficiency in the provision of services.

### Archaeology, History, and Aesthetics

Potential Impacts - The Land Use Policies and Standards Element does not attempt to regulate demolition of older structures. This is likely to occur as the construction of the sewer system will result in many new "buildable lots". The element does not set policies regarding maintaining the rustic/historic character of Wawona through design standards. Although this element does provide for an archaeological study prior to further division, it does not provide for policies regarding construction activities on private lots located on a known archaeological site.

Mitigation Measures - The second phase of the plan should include a Community Design Element which addresses the architectural and historic preservation concerns.



## BACKGROUND

The proposed Land Use Policies and Standards for Wawona (the first phase in the development of the Specific Plan) has been developed to address the unique concerns of this small public/private community located within Yosemite National Park.

Wawona is a community of approximately 350 dwelling units (many vacant and/or seasonally occupied) that lies along the Highway 41 entrance to Yosemite Valley. Wawona has a long history of Miwok and Euro-American settlement and is the site of the popular Wawona Hotel and Pioneer History Center.

The National Park Service (NPS) owns the majority of property in Wawona. The balance approximately 31% by acreage is held privately. Many of the privately held property consists of small lots that have older cabin structures built for occasional occupancy. Much of the original construction in Wawona occurred in the first half of this century although many older structures have been replaced with newer homes. In 1970 the National Park Service entered into an aggressive land acquisition program and purchased an interest in many privately held parcels often offering existing owners a long term occupancy agreement. The present situation in Wawona is similar to a checkerboard effect of private/public land ownership with the National Park Service owning most large parcels and many small lots throughout the community. All current privately held property is located within Section 35 which forms the boundary of the Wawona Town Planning Area (approximately 640 acres).

The Federal Government has ceded partial legislative jurisdiction over privately owned land in Section 35 to the State of California which has resulted in concurrent civil jurisdiction (Title 16 US Code Sect. 1-A-3). The State of California has accepted this jurisdiction. The result is a unique situation where jurisdiction is shared.

Most of Wawona was developed prior to present day land use controls were developed on small lots not meeting current health requirements for on site wells and septic disposal. Problems associated with this situation were compounded when the vacation residences were permanently occupied by retirees or NPS employees. The lack of an adequate septic and water system prevented Wawona from expanding to meet the needs of visitor, residents and NPS employees. According to the "Environmental Assessment Wastewater Treatment Facility 1981" NPS, many wells were contaminated and failing leach fields threatened pollution of the Merced River.



The National Park Service responded by planning and developing a community water and sewage collection system to serve the parcels they owned throughout the community. They later expanded their plan to serve all parcels in Wawona (private and public). A discussion in "Environmental Assessment Reconstruct Water System Wawona Area, Yosemite National Park" revealed severe capacity constraints with the new water system and NPS has now indicated that water service will only be provided to property owned by NPS and a few private parcels that do not meet the 50 ft well/ sewer setback requirements.

Existing health regulations presently constrain or prevent the development/redevelopment of many small parcels in Wawona. The development of off site water and sewer systems will make many presently substandard parcels developable by existing county standards.

The National Park Service and residents of Wawona are aware of the growth inducing impact of the new systems that have been constructed. In order to assure that new development or redevelopment is compatible with existing land uses and with the purposes and plan of Yosemite National Park, the Land Use Policies and Standards Element of the Specific Plan has been developed.

The Specific Plan Process was selected as the most effective method to address Wawona's many unique concerns. Wawona, a historic community located within Yosemite National Park, posed many challenges for Mariposa County and the National Park Service with regard to land use issues and control. After many years of negotiations and discussions NPS and Mariposa County reached agreement on most major issues regarding the provision of services and shared responsibility and control.

The Land Use Policies and Standards of the Specific Plan is the result of many years of discussion between the County, NPS and private landowners within Wawona. The document, although not a complete Specific Plan, is a first step in addressing the many unique concerns within Wawona while providing for shared jurisdictional control.

In order to address this urgent need for land use controls the County of Mariposa and NPS has decided to develop and adopt the Specific Plan in two phases. The first step will be to adopt and implement the Land Use Policies and Standards Element of the Plan. The next step will be to develop policies, standards and implementation tools that address the many other environmental, social and economic concerns in Wawona including Circulation, Public Facilities, Drainage, Aesthetics, Archeology and Historic Preservation.

## PROJECT DESCRIPTION

The proposed Land Use Policies and Standards for the Wawona Town Planning Area outlines several policies that address Wawona's unique situation. The plan designates one Residential district, one Commercial district, and an Environmental Protection and Floodplain District. Development is to be curtailed (except for picnic facilities, trails, nature study etc) within the Floodplain and Environmental Protection District. The Mountain Residential District will be subject to specific density and use standards which are more rigid than present county regulations for residential property. The plan regulates domestic animals and transient short term lodging including rentals of private units and home occupations. According to the Land Use Policies and Standards and NPS there were 358 year round housing units in 1980, 274 or 76.5% were seasonally occupied. These numbers included NPS owned property. The Limited Commercial District outlines specific uses permitted, density, height, lot coverage, parking standards etc. All districts are subject to rigid sign regulations, mandatory requirements for sewer connection, and other site development standards.

The Land Use Policies and Standards outlines specific requirements regarding non-conforming lots and uses and future development. The standards includes a requirement that if a non-conforming use or structure is severely damaged exceeding 50% of the value no reconstruction is to be allowed. All lots smaller than current requirements (6000 sq ft) would be considered undevelopable unless construction could occur without a variance relative to setbacks, site coverage etc. In addition the policy states that the longest duration of non-conforming uses would be 50 years. The standards further indicate that existing uses which were in violation of any State or County Statue, regulation or Ordinance in effect at the date of the adoption of the regulations shall be discontinued within 6 months. The plan also establishes procedures for temporary permits, use permits, variances, and appeals.

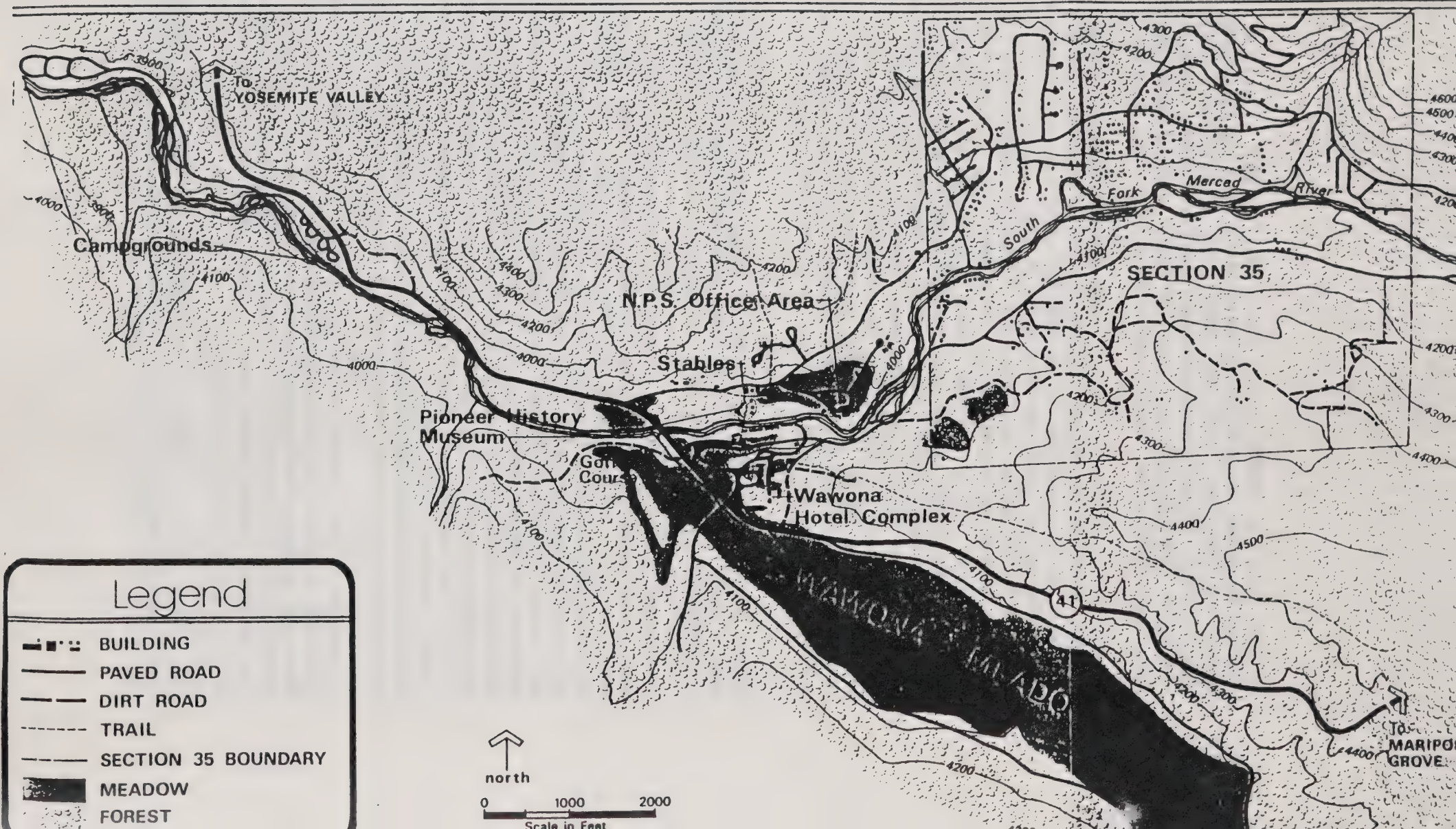
The plan was developed in order to address the specific concerns of the Wawona area especially with regard to the possibility of uncontrolled growth and redevelopment damaging the natural environment, interfering with NPS plans for the area and destroying the unique character of this small community. The new NPS facilities may have a significant growth inducing impact and without additional land use controls Wawona could develop in a manner inconsistent with the values and desires of existing residents. The unique NPS/private land holding patterns create a potential for significant conflict between the private land holders and the NPS. This plan attempts to address the various public and private concerns within this unique area.



# Wawona

Wawona Map #4

The Workbook - Yosemite Master  
Plan, U.S. Dept. of the Interior  
Yosemite National Park Service,  
California, October 1975





## DESCRIPTION OF THE PHYSICAL ENVIRONMENT

Wawona, elevation 4000 ft, is located near the confluence of Chilnualna Creek and the South Fork of the Merced River. Located in a Mixed Conifer belt, vegetation consists of various pines, firs, cedars and oaks. Several drainages (north/south) run through Wawona draining into the Merced River creating many riparian habitats where cottonwoods, alder and maple trees can be found.

Soils in Wawona are formed from a parent material of decomposed granite, mildly acidic with a depth from two to four feet. Alluvial soils are prevalent in the river valleys. Air quality in Wawona is good. Deer are abundant in Wawona and highly visible in the open grassy areas near the Hotel and golf course. Other wildlife is also abundant and includes raccoon, squirrels, coyotes and an occasional bear. The topography in Wawona is characterized by flat areas and gentle slopes near the river with steeper slopes further away from the river. The flood areas along the river and creeks create a natural wildlife route through the region. The majority of the homes are constructed upon the flat areas above the river and along the gentle slopes above. A few parcels and homes are located in areas of steeper slopes and some are accessed by roads with gradients in excess of the 12% county standard.

The climate in Wawona consists of cool winters and hot summers. Precipitation which falls as snow and rain averages 37 inches. Most precipitation occurs in the winter as Wawona is predominately dry during the summer months.

Wawona is divided physically by the Merced River in to North and South Wawona. North and South Wawona are both accessed separately by individual roads that intersect with Highway 41. North Wawona is more intensively developed with the bulk of the homes and commercial cabin facilities. South Wawona is less developed with many winding narrow roads. A church camp is located in South Wawona. Development in the Town Planning Area consists of a small store, two cabin resort complexes, an elementary school, single family homes and cabins of various size, design and age. Many of the homes/cabins constructed in Wawona are over 35 years old, some are in deteriorating condition. According to assessor records nearly one half of the private housing stock in Wawona has an assessed valuation of less than \$25,000 while one sixth has a valuation less than \$10,000. Many of these cabins are not suitable for winter use and remain vacant for much of the year.

In contrast to the older homes and cabins many newer well kept homes have been constructed using a variety of designs and materials. Many of these newer homes are large and appear well built. The existence of many older substandard dwellings has not resulted in blight conditions one might find in urban areas where housing stock is in poor condition. In staff's opinion, the older cabins appear to contribute to



the aesthetic character that make Wawona a unique community in which to live. An examination of a local newspaper indicates the asking price of some small lots in Wawona at \$55,000, while modern homes were in the \$200,000 range.

At the present time, individual homes in Wawona are primarily served with on site water and septic systems. Two water companies serve specific subdivisions in the community while several small group systems serve other individual parcels. Groundwater is the primary water source in Wawona at the present time. The National Park Service provides fire suppression service to the community through their fire hydrants. They also presently serve some of their property with the NPS water system and expect to add additional homes to this system as needed.

Noise in Wawona is limited to local automobile traffic and normal domestic noise except during periods of construction. Electric and telephone wires are strung from trees and poles throughout the community. Sewer main lines have been installed and roads have been patched where excavation was necessary. Survey stakes mark the location of water and sewer lines. The sewer system is expected to be functioning in fall 1987.

## ENVIRONMENTAL DESCRIPTION - POTENTIAL IMPACTS AND PROPOSED MITIGATION

### GROWTH (Growth Inducing Impacts)

Wawona, with its unique combination of private and public holdings has potential for significant growth in a variety of ways. A substantial number of the privately owned parcels (many below 1/2 acre) could not qualify for a building, well or septic permit since they would not meet Health Department requirements for on site well and septic development. NPS has recently installed a sewer system that will be available to serve most parcels. The development of this new system may allow development or redevelopment of over 100 formally substandard lots. The National Park Service presently owns and controls the new sewer system. NPS also owns and controls two-thirds of the land in Wawona plus all the land surrounding Wawona (including Wawona Hotel and campground). NPS has plans for substantial levels of growth in Wawona including hotel expansion and increased employee housing. A substantial role in Wawona's future growth is within NPS hands and beyond the control of Mariposa County land use regulations. However, the private holdings have the potential to significantly alter the future development of this unique area. The Specific Plan, of which the Land Use Policies and Standards forms a major part, is an attempt to address and resolve the many issues in this unique public/private community.

### NPS Induced Growth

According to the "Final Environmental Impact Statement, General Management Plan" of the National Park Service, 1980, the following growth is planned for the Wawona Area.

- Provide 145 overnight accommodations units by utilizing historic new structures. Restore Wawona Hotel for winter use.
- Construct a 200 site campground in Section 35.
- Rehabilitate 100 site campground and 30 person group camp for winter use.
- Provide facilities for employee housing to accommodate a maximum of 120 permanent and 210 seasonal employees only if housing is unavailable outside the park.



If the above actions are carried out, Wawona will experience substantial growth regardless of what occurs within the private sector. The ultimate plan to more than double the number of hotel rooms, and conversion of the hotel and campground to permit winter occupancy should result in increases in demand for services throughout the year. This should also result in substantial increases in employment opportunities. This increase in employment opportunity may be partially met by some residents of nearby areas (Fish Camp or Oakhurst) and existing Wawona residents although this small labor pool may not produce enough employees to meet the demand resulting in some jobs being unfilled.

The "Final Environmental Impact Statement, General Management Plan" further states that NPS intends to provide housing for a maximum of 120 permanent employees (NPS, Yosemite Park & Curry Co., and "Other") and 210 seasonal employees "only if housing is unavailable outside the park boundary". According to Paul Anderson, Park Ranger, recent directives discourage expansion of employee housing through new construction, redevelopment, or substantial rehabilitation. At the present time the NPS in Wawona has been directed to merely maintain NPS's existing residences in their current condition and make necessary repairs, no rehabilitation.

According to Paul Anderson, NPS presently owns 62 dwelling units in Wawona (35 permanent units, 15 seasonal and 12 for YP & C Co. employees). NPS has potential fee title on an additional 51 homes which are presently privately occupied but will become available during the next few decades. Paul estimates a maximum of 20-30 of these homes will be suitable for winter occupancy. Adding these to the 35 existing permanent homes, it is apparent that without new construction or rehabilitation (winterizing summer units), NPS is considerably short of the goal of 120 structures in which to house employees. Until this policy is changed, there will continue to be a fundamental conflict with the General Management Plan.

Seasonal employees are presently housed in cabins and tent villages on NPS property within or adjacent to Section 35. The demand for seasonal housing could be provided by expanding these facilities which should be possible with the new water and sewer system. Significant land is available to NPS for expansion of seasonal and permanent housing. Assessor records combined with NPS sewer maps indicate the following:

#### NPS owned Property

Vacant Parcels	66
Parcels with structures	92
Life Estates	17

Note: Many parcels with structures are unsuitable for winter occupancy. Life estates will become NPS property but are currently privately assessed.

An additional 20+ NPS units are on parcels with more than one dwelling unit. Many of these units are small, and not presently suitable for winter occupancy.

Yosemite National Park activities and growth play a major role in growth in Wawona. Any evaluation of growth impacts of the Land Use Policies and Standards should first evaluate the external growth pressures on this unique private/public community.

### Privately Owned Parcels and Induced Growth

There are approximately 233 privately owned parcels with structures according to assessor records. In addition there are approximately 56 privately held lots that may hold some development potential. Many of the structures on existing lots are small and in poor condition. An evaluation of the assessor records and NPS sewer map indicates the following totals:

#### Privately Owned Parcels

	<u>Parcels greater than 6000 sq. ft.</u>	<u>Parcels less than 6000 sq. ft.</u>	<u>Total</u>
Vacant	46	10	56
Improvements valued below \$10,000	32	8	40
Improvement valued \$10,000 - 25,000	48	14	62
Improvements valued over \$25,000	123	8	131

Total Vacant parcels plus parcels with assessed valuation below \$10,000 = 96

Total Vacant parcels plus parcels with assessed valuation below \$25,000 = 158

Nearly one-half of the privately held property in Wawona has a structure upon it with an assessed value of less than \$25,000. A review of a local newspaper indicated that the asking price of vacant lots in Wawona were as much as \$55,000. This market situation where high priced lots contain low value improvements, often creates a high potential for



replacement and redevelopment. Should this occur in Wawona over 80 "underdeveloped" parcels may redevelop over the next few decades.

The high prices would also most likely be beyond the reach of most NPS and YP & CC employees. It is not expected that the private sector in Wawona could provide employee housing unless the market conditions change, particularly with the proposed land use standards. So long as the number of lots in Wawona is limited and demand exceeds supply the high prices are expected to continue. The new sewer plant may release more lots for development but it is doubtful that lot prices would fall to within the price range of most employees.

Because of Wawona's unique location within Yosemite National Park, it may always attract the affluent vacation home market and those wishing a retirement home. It is difficult to project the demand for vacation and retirement homes in Wawona since so many different factors (including alternative locations, taxes, general economic situation) impact the market. The number of buildable (vacant or redevelopable) lots is clearly limited in Wawona and the NPS will likely prevent any additional private development from expanding within the boundaries of Yosemite National Park.

#### Potential Impacts

The Specific Plan's Land Use Policies and Standards Element establishes several policies that should restrain growth in Wawona. The policies restrict development to one dwelling unit per lot, and set minimum parcel sizes for new subdivisions to 1 1/2 acres. The setback requirements, maximum site coverage, and height limitations should restrict the ultimate size of improvements. The land use designations limit commercial uses to sites currently in commercial use. This will limit commercial growth and development.

Present requirements (Unclassified Zone) allow more than one dwelling unit per parcel and set no site coverage limitations. Set back requirements in the Unclassified zone are limited to 50 ft from the centerline of the road. Most uses are permitted in the Unclassified zone although a use permit is required for a mobile home park, kennel, hotel, dump (etc) and other uses that might be objectionable in terms of noise or other impact.

The Land Use Policies and Standards once implemented should substantially control the type of development and prevent the overbuilding of commercial facilities thus maintaining Wawona as a residential area.

The Land Use Policies and Standards do not restrict all growth. They do allow subdivision of parcels with a 1 1/2 acre minimum requirement. Although many of the subdividable parcels are within the floodplain where development is restricted, the 1 1/2 acre minimum could allow creation of a maximum of 12 parcels, (based on assessor & NPS sewer

information) not counting the church camp property. Conceivably the church property could be divided into 20 parcels but environmental and physical constraints could prevent this from occurring.

In addition to the parcels listed above there are a few parcels just below three acres that could possibly divide if additional land could be obtained from a neighboring parcel. (ie lot line adjustment) Current General Plan standards for subdivision in the Town Planning area provide for 2 1/2 acre minimums which would reduce the total number of potential subdivisions to 6 on the non church property. The Land Use Policies and Standards could reduce division further if they provided for larger minimum acreage sizes although this would not be significant as there are few areas where subdivision would be possible.

### Mitigation Measures

Direct impacts associated with development in Wawona are addressed in other sections of this report. Most land in Wawona is currently subdivided and developed. Redevelopment may be the primary form of growth to occur in Wawona due to the development of the new sewer system. This type of growth is difficult to regulate due to the existence in Wawona of so many legal parcels. The proposed plan attempts to regulate this development so that it occurs in a controlled manner. The primary landowner and the developer of the growth inducing water and sewer system (NPS) is not subject to local control thus any county action is limited to impact upon the privately held land. Due to the many existing constraints, and limited potential for "new" development projects, additional mitigation is not considered necessary or feasible.

### TOPOGRAPHY AND DRAINAGE

Slopes in the Wawona area range from 2-40% with most of the development occurring on slopes less than 10%. The gently rolling terrain with significant level areas has provided numerous building sites and few major development constraints. A few roads have gradients in excess of the the 12% County Standard and were developed prior to current requirements.

Several small drainages and Chilnualna Creek intersect the South Fork of the Merced River in Section 35. North of Wawona the slopes become steep and at times, during periods of heavy rain, water may flow rapidly down the hills into the Merced River. An examination of the site and discussion with local residents revealed that at times minor flooding is a concern since streets become drainages as water sheet flows down hillsides toward the flat area near Chilnualna Rd. This water may collect in the level areas complicating the septic leach field concerns of the area. Some landowners have developed drainage channels on their property in an effort to divert the sheet flow runoff into the



natural streams. Examination of the site revealed that the older construction has occurred in Wawona with little regard for surface drainage which may create difficulties for future development. Examination of the site also revealed that a few culverts under streets were poorly located creating additional runoff difficulties.

The large number of dwelling units placed close together, small lot size and trend toward redevelopment with larger homes and greater site coverage could create long term drainage and erosion concerns for Wawona. Wawona was developed prior to present day land use controls and zoning. It is too late to require larger parcel sizes or other land use controls that would have prevented the existing situation.

### Potential Impacts

Construction in close proximity to natural drainages which are subject to overflow can create problems with erosion and even threaten the foundation of the dwelling due to scour. The lack of adequate culverts and an overall effective drainage system in Wawona accentuates the problems in developed areas. During periods of heavy rain erosion problems and flooding concerns become increasingly significant due to the lack of an effective drainage system. Additional development and redevelopment may increase these concerns unless drainage improvements are incorporated into the new development.

The Land Use Policy and Standards places a maximum lot coverage of 40% or 4000 sq. ft. (whichever is smaller) which should reduce overall impacts for new development but it does not address the existing drainage concerns. The development of an overall drainage program as part of a Public Facilities Element could mitigate concerns. The Plan includes areas where slope exceeds 30% in the Environmental Protection District but they fail to deal with areas of less slope that may be subject to landslide or rockfall due to significant slopes adjacent to the site.

### Mitigation Measures

1. The completed Wawona Specific Plan should evaluate drainage concerns and develop an overall drainage plan addressing the need for additional culverts and channels to reduce erosion and control sheet flow.
2. The completed plan should designate a minimum building setback from drainage channels, and recommend development standards for controlling drainage and implementing erosion control measures.
3. The Land Use Policies and Standards identifies an area of steep slopes which is protected by an Environmental Protection District limiting development. A procedure to identify potential landslide hazard areas and property subject to such

hazards should be developed as part another element. All development projects should be reviewed to ascertain geological hazards.

4. Areas with slopes in excess of 20% should be identified as erosion hazard areas as provided for in the Grading Ordinance.
5. All subdivision roads should be engineered including erosion and drainage control.
6. Each building permit for major projects should be reviewed for adequate on site drainage control and evaluated for off-site impact. Off-site improvements shall be made when it has been determined that added development significantly impacts the situation.

#### HYDROLOGY & FLOOD HAZARD

Data obtained in the U. S. Dept. of Interior "Environmental Assessment Reconstruct Water System" indicates severe water supply constraints during the summer and early fall. Data included in the Wastewater Treatment Facility's Environmental Assessment confirms significant low flows one of three years in Wawona. The low flows typically occur during the peak tourist season when most commercial facilities (hotels, rental cabins) are filled to capacity. The Merced River, Chilnulna Creek and the many drainages act as groundwater recharge for the entire region. The potential increase in surface water use plus expected increased well development could create substantial constraints during dry years.

Substantial land in Section 35 along the Merced River is within the 100 year and 500 year flood plain. Two existing homes have been constructed within the 100 year flood plain. Many more homes in Wawona have been constructed within the 500 year flood plain. Sierra flooding conditions are variable since an extremely heavy snow pack combined with warm rains can create significant flooding. During the spring large amounts of water flows through the canyons.

The watershed of the South Fork of the Merced River is over 100 square miles at the gaging station south of Wawona. The watershed is characterized by steep granitic terrain. An examination of the median monthly flow rate printed in the U. S. Dept. of Interior/National Park Service (p. 12) "Environmental Assessment Reconstruct Water System" indicates the following flows for the South Fork of the Merced River:



<u>Month</u>	<u>Median cfs</u>
October	5.9
November	14.5
December	32.7
January	39.5
February	100.5
March	129.5
April	1356.5
May	569.5
June	171.0
July	16.2
August	3.7
September	3.3

Although these rates are average, there is typically wide range in the annual discharge. An examination of the National Park Service "Environmental Assessment of Wastewater Treatment Facility, October 1981", p. 42, gives the following maximum and minimum discharges:

	<u>cfs</u> <u>Maximum</u>	<u>cfs</u> <u>Minimum</u>
1961	553	1.1
1962	1,580	2.1
1963	5,380	4.0
1964	937	1.3
1965	1,640	5.0
1966	967	1.9
1967	2,210	5.9
1968	600	1.6

It is obvious from the numbers that river flows can be significantly variable. In 1963 the amount of flow was more than double any previous amount in the decade.

### Potential Impacts

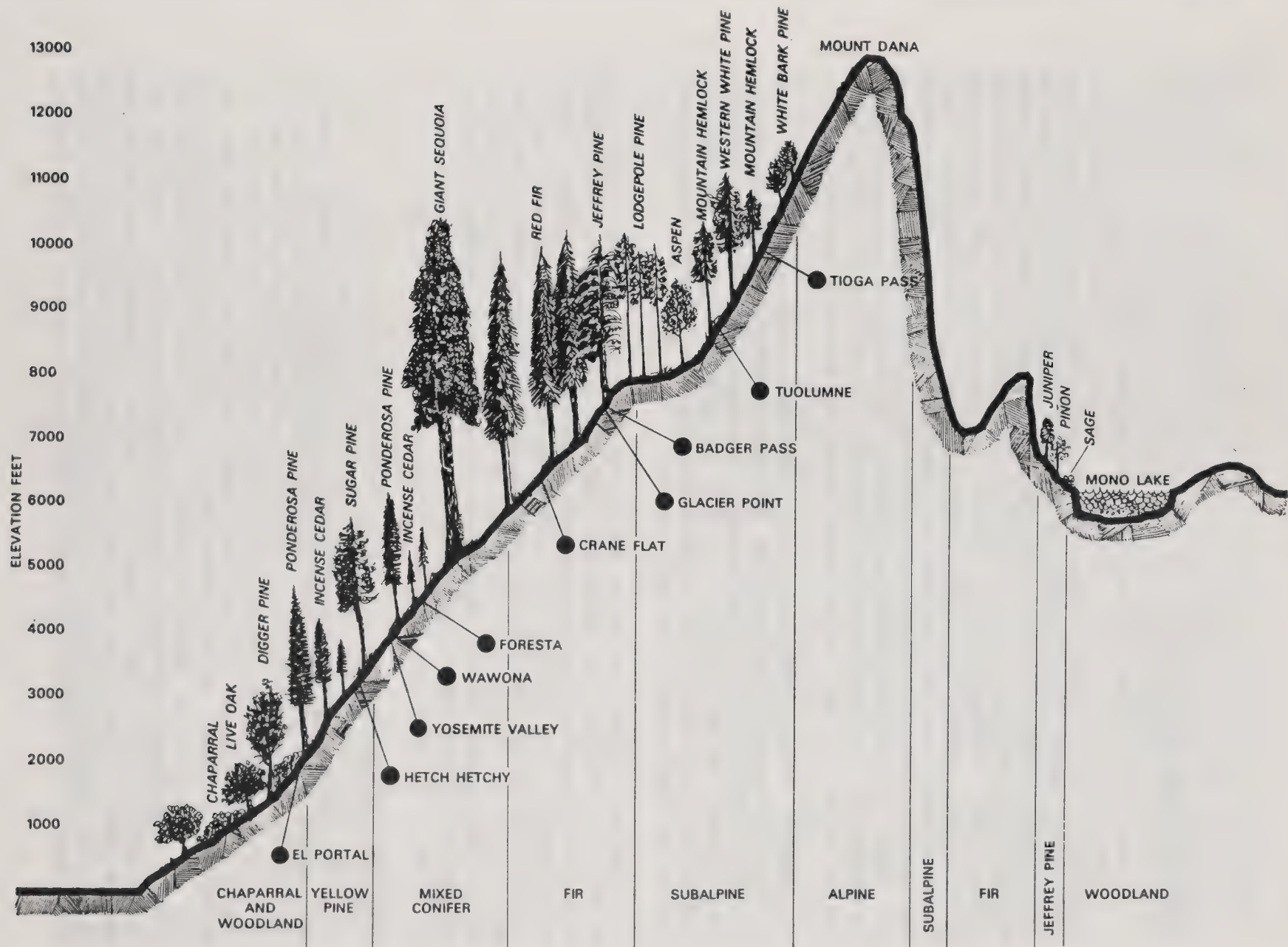
The Land Use Policies and Standards Element of the Specific Plan permits new development yet does not address the need for developing new sources of water. Growth and increased development may create increased water shortage concerns in the area. The Public Facilities Element of the Specific Plan is expected to address these issues and evaluate various methods for implementation including well monitoring and conservation practices. The Land Use Policies and Standards prohibits construction within the flood plain but does not identify areas near existing drainages that may be subject to overflow nor does it address the potential for increased flooding and drainage concerns caused by new development. The Public Facilities Element is expected to address these and overall drainage concerns. A review of the Land Use Policies & Standards map of the existing 100 year flood plain indicates that the

Specific Plan map differs from the most recent flood information and map provided by the Corp. of Engineers. Modifications to the Land Use map contained in the Land Use Policies and Standards are necessary to address this new study.

#### Mitigation measures

1. The Public Facilities Element should research the feasibility of developing a long term program to monitor the quality and quantity of water in existing wells in Wawona in order to evaluate the need to develop new sources.
2. Develop policies and programs regarding water conservation and issuance of new building permits in accordance with Section 6.50 of the Mariposa County General Plan should the water shortages become serious within Wawona.
3. The Public Facilities Element should research the feasibility of developing policies and programs regarding consolidation of water supply systems, mandatory connection and development of additional water supplies.
4. Revise the Land Use Map to correspond with the recent Corp. of Engineer 100 year flood plain information.





# Environments Cross-section

## VEGETATION AND WILDLIFE

Wawona is located in the Mixed Conifer Vegetation Zone. Vegetation is characterized by a variety of trees including Ponderosa Pine (*Pinus ponderosa*), Sugar Pine (*Pinus lambertiana*), Douglas Fir (*Pseudotsuga menziesii*), White Fir (*Abies conocolor*), Incense Cedar (*Libocedrus decurrens*), Black Cottonwood (*Populus trichocarpa*), Black Oak (*Quercus kelloggii*), Dogwood (*Cornus nuttallii*), White Alder (*Alnus rhombifolia*), Maple (*Acer macrophyllum*). Shrubs include Snow bush (*Ceanothus cordulatus*), Manzanita (Genus *Arctostaphylos*), gooseberries (Genus *Ribes*), hazel nut (*Corylus rostrata*) and western azalea (*Rhododendron Occidentale*) along the creeks and river banks. Dense stands of cedar and fir trees can be found throughout Wawona. In some areas tree stands are so dense that few understory species exist. In other areas such as south facing slopes and near existing drainages, shrubs are more prevalent.

Wawona has a significant built environment thus substantial areas of the native vegetation have been disturbed. Wawona's relatively gently sloping terrain, lush vegetation, and easy access to water has made the area attractive to a variety of wildlife. Mule deer are abundant in Wawona and are especially evident grazing in the open grassy areas around the Wawona Hotel and golf course.

Various birds including owls, woodpeckers, stellar jays, and mountain chickadees are prevalent. Red and gray squirrels, chipmunks, porcupines, racoons, and coyotes and bears are common in Wawona. Bears have created difficulties and conflicts with residents due to the availability of garbage in the area. Mule deer are prevalent in the area and Wawona is listed as a important migration route and an important deer winter range in the Department of Fish & Game "Areas of Special Biological Importance." No endangered species have been identified in the area.

### Potential Impacts

The Draft Land Use Policies and Standards Element permits development and redevelopment to occur within Wawona. As discussed in the Growth Section preliminary investigation would indicate that market conditions exist for many small older cabins to be purchased and replaced by larger structures. These new structures may then be used for permanent occupancy as retirement homes, as year round homes for a few NPS employees or as vacation homes. This trend could increase the number of permanent residents in Wawona and increase the impact of man on the natural environment. The NPS plans for increasing the size of the Wawona Hotel should also increase the number of individuals using the area. The Land Use Policies and Standards does not adequately address this issue. If the NPS continues with their current policy not to



redevelop residential parcels and not expand residential use of their properties the impacts may be of less concern. If they follow the Yosemite Management Plan and develop significant levels of NPS housing in Wawona the natural environment will be affected. NPS owns the bulk of property in Wawona and their action with regard to NPS owned residential parcels is a factor beyond the County's control.

The Land Use Policies and Standards develops a maximum site coverage limit and requires that new lots created be a minimum of 1 1/2 acres. These requirements once implemented should indirectly benefit the natural vegetation and wildlife. However, the present standards do not provide for the preservation of creeks and drainages in Section 35. These drainages could provide a wildlife corridor through the area to the Merced River. As other elements are added to the Specific Plan these concerns should be mitigated. The policies and standards also do not directly address the issue of preservation of existing trees on individual lots in order to preserve the natural environment. Conceivably an individual property owner could clear cut their entire lot although only a portion of the land was needed for development. This would impact not only the wildlife but could create significant erosion/drainage concerns for nearby parcels and aesthetic impacts as well. There is also a concern for bears being attracted to unsecured garbage cans in the area. The policies and standards do not address this concern although these issues are expected to be addressed in other elements.

#### Mitigation Measures

1. The complete plan should research the feasibility of establishing a program for development of a system of wildlife corridors within the community.
2. The complete plan should research the feasibility of establishing a policy regarding tree removal and vegetation (% of lot) that could be cleared for development.
3. The complete plan should establish policies and programs for solid waste disposal outside garbage containment and disposal in order to protect wildlife. The county solid waste plan is currently being developed and should address these concerns.

#### CIRCULATION AND TRAFFIC

The road system in Wawona consists of two major collectors, Chilnuala Falls Road and Forest Road, each with a direct access off Highway 41. Chilnuala Falls Road provides major access to North Wawona while Forest Road provides access to South Wawona. The Highway 41 bridge across the Merced River is the only automobile route linking North and

South Wawona. Several minor streets extend from Chilnualna Falls Road but only a few (ie Bruce) loop back to Chilnualna Falls Rd. Most minor roads in North Wawona provide no through access and have inadequate room to turn around. One large loop road off Forest Road in South Wawona is Coon Hollar Road. This road is narrow, poorly surfaced, and may be inaccessible without a four wheel drive during some periods of the year. Two minor roads off Forest Road that have inadequate room to turn around are Leonard and Wawona Way.

Existing road widths in Wawona ranges from 8' to 25'. Two way traffic is not possible without one vehicle pulling onto the shoulder on most minor roads and in some portions of Chilnualna Falls Rd and Forest Rd. Many minor roads are unsurfaced, extremely narrow and frequently the roadway does not follow the existing easements.

#### Summary of Road Conditions in Wawona

<u>Road</u>	<u>Surface</u>	<u>Min Width</u>	<u>Slopes</u>
Forest	Paved	15 ft	0-5%
Chilnualna Falls	Paved & Oiled	11 ft	0-10%
Greeley	Oiled	10 ft	0-15%
Leonard	Gravel	12 ft	0-3%
Spelt	Oiled	16 ft	2-24%
Bruce	Paved	11 ft	2-10%
Hoover	Oiled	15 ft	3-6%
Larke	Paved	25 ft	0-8%
River Rd	Oiled & Gravel	15 ft	2-10%
Romeo	Gravel	15 ft	0-8%
River St	Gravel	14 ft	0-8%
Mariposa Ave	Gravel	11 ft	0-5%

Note: Minimum Widths and other data is based on data obtained from the Wawona Town Planning Area Road Inventory, April, 1987, Mariposa County Planning/Engineering Department.

During the summer months the increased use of the area by tourists and temporary residents creates substantial concerns for both vehicular and pedestrian safety. The NPS apparently intends to expand the employee housing within the area and anticipates a need to expand the local elementary school. School children living in Wawona currently must walk or ride bicycles along narrow Chilnualna Falls Rd to access the school. Children living in South Wawona must use Forest road, then cross the bridge and walk along Chilnualna Falls Rd. unless they wait for a bus at the local store near Highway 41. The new growth expected from the



addition of the new sewer system, proposed expansion of the Wawona Hotel and potential intent of NPS to house more employees in Wawona will only create greater demands on the circulation system and increase traffic hazards.

### Potential Impacts

The Wawona Draft Land Use Policies and Standards fails to address existing and future circulation concerns. The plan allows for growth but does not provide for the increased circulation demands. The policies and standards also do not address the need for improved pedestrian paths for tourists and residents. As the other elements of the Specific Plan are developed, these issues will be explored and concerns mitigated.

The policies and standards do not address the need for fire safety concerns regarding the absence of adequate access and turnaround for fire equipment. There are several roads that may not have adequate access for large vehicles requiring substantial space to turn around. The present County road standards applied to subdivisions road standards should mitigate concerns regarding new development but do nothing with regard to existing unsafe conditions and do not address development/redevelopment on existing lots. These issues should also be addressed in the Circulation Element of the Specific Plan.

### Mitigation measures

1. The completed plan will include a circulation element addressing traffic, circulation and road improvement issues.
2. The Circulation Element of the complete plan should evaluate the need for separate pedestrian/bicycle access along Chilnualna Falls and Forest Roads to provide safe access for school children and other pedestrians (if feasible).
3. The Circulation Element of the complete plan should classify roads in Wawona and make top priority the widening of narrow areas along the major roads so two way traffic is possible without one vehicle pulling off the paved roadway. Widths and clearance should be adequate to permit snow removal and access for emergency vehicles.
4. All developments should be reviewed to ensure adequate parking.
5. All new subdivision proposals should be reviewed to insure compliance with county road standards.

## HEALTH

The existence of many small lots, combined with the numerous wells and septic systems, has created significant health concerns in Wawona. According to the Environmental Assessment conducted for the Wastewater Treatment Facility some poorly designed septic systems have contaminated nearby wells or drained into the Merced River. Many of the septic systems were constructed prior to regulations and were never inspected. Some individuals constructing cabins in Wawona as occasional dwellings did not design the system for permanent occupancy of the dwelling. Cesspools or tanks without leach lines were not uncommon construction practices in the early part of this century. Outhouses have been observed in some areas of South Wawona.

According to the County Sanitarian the existing church camp has an elaborate leach line septic system where effluent is pumped uphill to the leachline. The camp is not fully occupied year round but it does have an ability to accomodate over 200 campers in several cabins and other structures. According to the Sanitarian it is possible for the effluent to discharge into the river should the camp experience pump failure.

Several small cabins adjacent to the south side of the Merced River, are constructed on steeper slopes. The County Sanitarian indicated that several of these homes have significant problems with failing septic systems. Possible leaching into the Merced River has been noted but no plans for immediate connection to the sewer system have been developed.

## Potential Impacts

According to the County Sanitarian the NPS is not intending to connect the homes off Forest Rd adjacent to the river and the church camp into their sewer system. Should the camp septic system fail the camp would be forced to comply with County Code and would be required to make the changes necessary to bring the system into compliance. Connection of this camp could also encourage the development of this property further impacting the environment and creating circulation concerns. Some homes that presently have inadequate septic systems may not be able to immediately connect to the NPS sewer. The plan does not establish policies or priorities regarding the connection of all development to the sewer system.

The N.P.S. has estimated that it will cost at least \$4,000 for each property owner to connect to the new sewer system. The policies and standards element recommends that hookups occur in a reasonable time period. The N.P.S. is currently studying programs to provide for timely hookup to the sewer system. Because the County has no control over the terms of the sewer connection the plan has not addressed these issues specifically.



## Mitigation Measures

1. The Public Facilities Element of the complete plan should develop a policy regarding timely sewer hookup.

## COUNTY SERVICES

The National Park Service and the County of Mariposa both provide services to the Wawona area. Agreements exist between the two agencies with regard to the provision of many vital services. In some instances one agency provides back up support for the other. Wawona is relatively isolated from other populated areas of Mariposa County, requiring a minimum of one hour drive through Oakhurst, which is located in Madera County. High school students in Wawona attend school in Oakhurst 1/2 hour away. The isolation of Wawona within Yosemite National Park and the distance from the County Courthouse and service centers in Mariposa result in significant difficulties for the county to provide necessary service to this small community.

Police- The National Park Service provides the majority of the police service in Wawona. They respond to calls for emergency assistance and handle all concerns. According to the county Sheriff Roger Matlock the County has a deputy in Fish Camp that is available to respond to NPS requests for assistance.

Fire-The NPS provides mutual aid for structure fires in Wawona. The community of Wawona presently has a volunteer fire department that supplements the NPS service. NPS has recently installed water lines and fire hydrants throughout the community to improve their ability to respond quickly to fires in the area.

School-NPS provides the school building in Wawona. Bus transportation for high school students is provided by the county to Oakhurst. The bus to Oakhurst transports a few elementary students in Fish Camp and other areas to Wawona Elementary School on their way back. According to the current teacher at Wawona elementary school, only 10 students are presently enrolled.

Court-Mariposa County provides Civil court services for residents of Wawona. Violations of the County Ordinances such as the Zoning Ordinance, Subdivision Map Act, Building or Health Codes are handled by the County. NPS Federal court in Yosemite Valley handles minor traffic matters and misdemeanor matters.

Ambulance-NPS provides ambulance service throughout Yosemite including Wawona. They respond to emergency calls for assistance.

Health-The Health Department provides the services of a Sanitarian for inspections of well, septic systems, food service and other health concerns for compliance with State law. The nearest health care facilities are in Oakhurst and Yosemite Valley.

Road Maintenance-Mariposa County maintains county roads within Wawona. Many small roads in Wawona are not within the county system but are private easements serving several parcels. These roads are usually in poor condition as there is no community road maintenance association. NPS maintains roads throughout their property.

Water-Two private water systems serve two subdivisions within Wawona. According to Dick Riegelhuth of NPS several other smaller community systems operate in Wawona. In addition a few homes were connected (some without permission) to the older NPS system that was designed to serve only NPS facilities. A new system has been designed to serve all NPS property in Wawona. Water lines have been installed throughout most streets.

Planning & Building-The Planning and Building departments presently provide the same services to residents in Wawona that they provide to residents throughout the county. The Planning Department provides information, conducts investigations, and processes applications for subdivisions, variances, use permits and use permit determinations and makes recommendations to the Planning Commission or Board. The Planning Department conducts Environmental Reviews and enforces the existing Zoning Ordinance and Subdivision Map Act. In addition the Planning Department provides a variety of advanced planning functions such as revision of Title 17, general plan updates and process applications for general plan amendments. The Building Department issues building, well, septic and grading permits and issues road encroachments. They also enforce the Uniform Building Code and various county ordinances. They review all new construction and rehabilitation of existing structures within the county for compliance with various regulations. NPS also reviews all building permits for compliance. The present policy results in duplication.

### Potential Impacts

The Wawona Land Use Policies and Standards allows a level of growth to occur in Wawona that may increase the demand for county services. This level of growth is not larger than the level of growth that could occur under existing county ordinance if the plan was not prepared although it is larger than growth that could occur if a more rigid plan (ie larger acreage minimums for subdivisions) were developed. The majority of parcels in Wawona are already created thus this requirement would have a marginal impact. This requirement would not prevent building on existing parcels.



The new Land Use Policies and Standards only controls land use of privately owned land in Wawona. Because a significant amount of land is owned or controlled by NPS (approximately 2/3) it is difficult to quantify the expected impact of the plan. In addition, the growth of nearby facilities such as the Wawona hotel, campground, and employee residential areas (on nearby NPS property) will impact Wawona and the demand for county services. Evaluation of the demand for additional county services is difficult due to so many outside factors beyond the plan's control.

The Land Use Policies and Standards allows a level of controlled growth to occur in Wawona. Growth normally results in an increase in demand for most services. Increased demand for road maintenance, health services, and welfare services can be expected. One can also expect an increase in the demand for NPS services such as fire, police, ambulance and maintenance of NPS roads. Increased funding for road and pedestrian way improvements will be required as growth occurs. School enrollment may also increase significantly if NPS elects to increase employee housing in the area. This increase would also impact the number of high school students requiring transportation to Oakhurst. According to the Superintendent of Schools, George Barendse, Wawona Elementry school has a maximum capacity of 20 students while the school bus (which also transports students in Fish Camp) has a maximum capacity of 45.

Increased demand for services will most likely occur in the Building and Planning Departments. The Land Use Policies and Standards outlines additional requirements that are significantly different and more rigid than traditional Town Plan Standards in other areas of the county. Many of the regulations are only applicable to Wawona thus requiring additional staff time to develop new procedures for review of Wawona permits. The Land Use Policies and Standards requires that each permit must obtain NPS clearance. This process could create time delays and additional staff time coordinating processing. In addition the standards provide for an appeal process when NPS rejects a permit. This may result in increased levels of Planning staff time researching the individual situation, preparing reports, answering inquiries, and presenting recommendations. Implementing the plan will require Planning and County Counsel time drafting new ordinances. Enforcement of the regulations will require Planning and District Attorney staff time.

These impacts are inherent to the regulatory process involved in implementing Land Use policies County wide. Necessary staff additions to administrate the plan will be considered through the normal budgetary process. Fees for services within Wawona will be considered. Significant fiscal impacts are not anticipated.

### Mitigation Measures

1. The Completed Specific Plan should reasearch the feasibility of reactivating the inactive County Service Area or replacing it with a Community Facilities or other special district.
2. The County should consider charging application fees which cover the actual cost to the County of processing the applications.



## ARCHAEOLOGY, HISTORY AND AESTHETICS

The Wawona area is rich in archaeological resources. There is documented record of Miwok and pre-Miwok occupation of this area. A Wawona Archaeological District was formed and entered in the National Register of Historic Places in 1978. All the Town Planning Area is within this district. According to the "Environmental Assessment, Reconstruct the Water System" several archaeological investigations have occurred in the Wawona area (Bennyhoff, 1952, Napton, Albee & Greathouse 1974; USDI NPS, 1981) and (USDI, NPS, WACC 1984) and recent studies in 1986 and 1987 that have not been released. NPS employs several archaeologists and staff research personnel to evaluate areas of significance. An archaeologist was present during the excavation of the water and sewer lines. According to NPS project archaeologist, Kathleen Hull, over 50 archaeological sites of significance have been found in the Wawona area, many in Section 35. In addition to archaeological resources the community of Wawona is rich in early Euro-American artifacts and is a rich example of early town development in the Sierras.

There are a large number of deteriorating older structures in Wawona. Although in some instances the historical significance has not been documented, the existence of these structures contributes to the aesthetic character and perception of the community. While the National Park Service owns many of the older structures of historical significance many old cabins still remain on private property.

### Potential Impacts

The installation of a sewer system in Wawona and the existing market conditions may result in the demolition of many older cabins and the replacement with newer structures. Many of these older cabins may be rich in history and may play a significant role in preserving the historic character and aesthetics of this community. The Land Use Policies and Standards fails to deal with the issue of preservation of existing structures of historical value nor does it mandate any specific design standards or programs to assure that new development is complementary with existing dwellings. The Historic Preservation Element of the completed Specific Plan will address these issues and is expected to recommend policies regarding preservation and design.

### Mitigation Measures

1. An archaeological reconnaissance should be required before any subdivision is approved, unless the developer

demonstrates that the area has been sufficiently investigated in the past.

2. The completed Specific Plan should include a Community Design Element which addresses architectural concerns and historic preservation.



## ALTERNATIVES

### No Plan Alternative

The present interim land use standard applied to the area by the County General Plan Rural Residential District in the Unclassified zone, sets a 2 1/2 acre minimum parcel size. The only set back requirement is that structures be 50 ft from the centerline of the road. Second dwelling units are permitted on all residential parcels so long as set back requirements are met and the residence can meet Health and Safety requirements. The Unclassified Zone allows most commercial uses although some uses may require a use permit. The Plan will decrease development potential due to the implementation of additional standards.

If the Land Use Policies and Standards are not implemented (through Ordinance) the most significant impact may be upon land use. Under the existing zoning ordinance some currently residential areas could develop commercially creating potential conflicts with residential uses. A second major impact may be with regard to new development and such issues as setbacks, site coverage, signs, and non-conforming uses. New development would not be restricted in the manner directed. As long as the 50 ft from the centerline of the road setback was maintained and the Health Department setbacks (well & sewer) were met the buildings could be placed at any point on the lot. The no plan alternative could increase growth and permit development that is not desired in the community.

Mariposa County is in the process of revising Title 17 (Zoning Ordinance). The new ordinance provides for residential categories with set back and use restrictions that would place additional controls on land use and new development. If the new Zoning Ordinance was currently in place and Wawona was zoned Residential, with some commercial (as indicated on the Land Use Policies and Standards document the impact of no plan alternative would be less. If the Land Use Policies and Standards is not approved it is likely that a document which incorporates Wawona's policies and concerns into a Town Plan would eventually be developed and implemented once the Zoning Ordinance was approved. The implementation of the existing plan will require a several separate Ordinances for Wawona.

## REFERENCES

1. Environmental Assessment, Waste Water Treatment Facility Wawona, U.S. Dept. of the Interior/National Park Service, Yosemite, California, October 1981
2. Environmental Assessment, Reconstruct Water System Wawona, U.S. Dept. of the Interior/National Park Service, Yosemite, California
3. Yosemite National Park, Draft Master Plan, Department of the Interior, California, August 12, 1974
4. Yosemite National Park, Preliminary Land Use Policy Statement, U.S. Dept. of Interior/National Park Service, Wawona, California, May 1980
5. Fahlen - Wawona Map, Water System General Plan Map, Yosemite National Park, California, June 7, 1985
6. Eckbo, Dean, Austin & Williams, Yosemite Excerpt from Land Use Study, Proposals for Zoning Section 35, California 1969
7. Wawona Water Conservation Plan, Yosemite National Park, California, May 3, 1985
8. Final Environmental Impact Statement, General Management Plan, Yosemite National Park, California, October 1980
9. General Management Plan, Visitor Use/Park Operations Development, Yosemite National Park, California, September 1980
10. Wawona Map #4, The Workbook Yosemite Master Plan, U.S. Dept. of the Interior Yosemite National Park Services, California, October 1975



### INDIVIDUALS CONTACTED

Paul Anderson, Wawona District Ranger, National Park Service, Yosemite National Park.

Dick Riegelhuth, Chief Resources Manager, National Park Service, Yosemite National Park.

Kathleen Hull, Project Archeologist, National Park Service, Yosemite National Park.

Barry Bell, Sanitarian, Mariposa County

George Barendse, Superintendent of Schools, Mariposa County Unified School District.

Jeffrey Green, County Counsel, Mariposa County

## FINAL ENVIRONMENTAL IMPACT REPORT ADDENDUM

One comment was received regarding the Draft Environmental Impact Report. Caltrans requested traffic figures on the impact to Highway 41. A short response with projected figures was prepared.



DEPARTMENT OF TRANSPORTATION  
P.O. Box 2048 (1976 E. Charter Way)  
FLOCKTON, CA 95201  
(209) 948-7906

June 29, 1987

10-Mpa-41  
Mariposa County  
Wawona Specific  
Plan Land Use Element  
Draft EIR  
SCH #87051802

Ms. Peggy Osborn  
State Clearinghouse  
1400 Tenth Street  
Sacramento, CA 95814

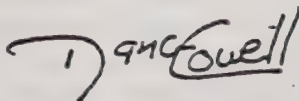
Dear Ms. Osborn:

Caltrans has reviewed the Draft EIR for the Wawona Specific Plan and offer the following comments.

Caltrans's primary interest in the Draft EIR is the traffic impact on ~~a~~ Route 41 in the Wawona area. No figures are given as to the number of existing or projected trips generated in the vicinity. This makes a determination of impacts difficult at best. Under traffic impacts in the document the statement is made that the plan allows for growth. Caltrans suggests that traffic impacts resulting from that growth be addressed, especially where the State highway is concerned. Also, where impacts appear significant, mitigation should be discussed.

Caltrans appreciates the opportunity to comment on the Draft EIR and requests a copy of the final document. Any questions regarding these comments may be directed to Al Johnson at Caltrans, telephone (209) 948-7838.

Very truly yours,



DANA COWELL  
Chief, Transportation  
Planning Branch

cc: Bill Lincoln, Mpa. Co.

ADDITION TO THE CIRCULATION & TRAFFIC ASSESSMENT  
CONTAINED IN THE EIR for the WAWONA SPECIFIC PLAN

COMMENT

Caltrans has requested more information for the Wawona Specific Plan EIR, on how the adoption of this plan could impact Highway 41 in the vicinity.

RESPONSE

To address this the following information was compiled:

Historical Traffic Counts  
Existing generation and attraction  
Potential generation and attraction  
Possible mitigation measures

There was no data available for how this traffic would be distributed onto the highway at Wawona, however, from the kinds of uses planned for the TPA, it can be presumed that much of the commercial activity would serve residents of the Wawona TPA, either on the south or north side of the river. Additional business may come from passing travellers or visitors at the Wawona Hotel.

The total number of trips theoretically generated (from homes or cabins) by the planned TPA land uses could be about 4200 per day, and the total number attracted (to potential commercial uses) could be approximately 5600. The actual number may be higher or lower, depending on the income of the residents, the future availability of services within the community, and other factors. These numbers may decrease during off-season months.

From the collected data and calculation, it appears that the proposed land uses of the specific plan will not produce many more parcels and excessive traffic. However, the new sewer system may encourage the replacement of cabins with homes, implying higher household incomes and thereby increasing the traffic generation rate and the need for commercial services.

This study also did not consider the additional impacts of the National Park Service Plans which are addressed in the Yosemite National Park General Plan. Those proposed uses, plus the possibility of the location of a staging area in Wawona, and growth in tourism within the Park could have more significant impacts than the landuses proposed by the Wawona Specific Plan.



### Historical traffic counts:

Traffic was measured in October of 1986, which is during the off-season. Traffic in 1987 was measured in July, after the sewer work was completed and the road re-surfaced (some work was continuing on the shoulders). These are raw counts, taken with a Jr. Counter, over a period of one week and then averaged. The total ADT entering and leaving the TPA this year was measured as approximately 1500. No peak hour values were obtained.

Location	Traffic Count		% change
	Oct 4-12 1976	July 16-23 1987	
1. Forest Drive @ County Rd sign (S. Wawona)	66	347	426%
2. Chilnualna Falls @ County Rd sign (N. Wawona)	282	1169	315%
3. Chilnualna Falls at "Hwy 41" (N. Wawona)	-----	1237	-----

### Generation & attraction.

#### Assumptions used to calculate trip ends:

1. All existing traffic generated will be from residential uses or existing commercial uses within the TPA, including the existing NPS dwelling units which are not controlled by the Specific Plan.
2. The following generation/attraction rates will apply:

retail use/grocery store	75/1000 sq. ft.
(light commercial)	
elementary school	0.5 to 2/student
hotel/motel	5/room
residence*	6/unit
- \* (this is presumed to be low because of the distance to outside services such as shopping, doctors, entertainment etc, however, it will probably increase as the value of the homes increases.)
3. The land-to-building ratio may be 1:4, for new commercial uses, and the land within these land uses will all be converted to the most intensive commercial use permitted.
4. There are currently under 100 cabin units in N. Wawona
5. The church camp in S. Wawona, which can accommodate over 200 visitors, will generate trips at a similar rate to a school, and will continue to operate as a camp in the future.

6. Homes valued less than \$25,000 may not be inhabited full time, and so were not included as "existing homes".
7. Many more "full time" homes will be constructed once the sewer system is in place, and these may produce a higher traffic generation rate.

Generation & attraction.  
Calculation of trip ends:

LAND USE	#	RATE	TRIPS
Existing:			
Total number of existing homes (value over \$25,000)	= 240	6	1440
Existing motel (units)	= 100	5	500
Existing school (students)	= 10	1	10
Existing church camp	= 200	2	400
Existing store (based on acreage)	= .69*	75	560
Total existing generation			2340
Total existing attraction			570
Potential:			
Potential homes	= 464	8	3700
Potential commercial acreage**	= 6.85**	75	5600
Church camp			400
Additional residential parcels	= 12	8	100
Total potential generation	=		4200
Total potential attraction	=		5600

\*(.69 acres X 43560)/4 = 7514 sq. ft.--7.5 X 75 = 560

\*\* (6.85 acres X 43560)/4 = 74,600 sq. ft.--74.6 X 75 = 5600

Possible mitigation measures to reduce impact on the highway:

1. Improved pedestrian & bicycle circulation, especially across the river, could allow for less vehicle trips within the TPA and along the highway between North and South Wawona.
2. Expansion of the existing bus service to Yosemite Valley and Oakhurst via Wawona could be done if there was a demand created by the residents.
3. Possible construction of additional deceleration and left turn areas at the intersection of N. Wawona Road with the highway may be necessary for Park Service expansion, as well as full development of the Specific Plan land uses.

All of these and other solutions should be explored in the Circulation Element of the completed Specific Plan.



## A P P E N D I C E S





MARIPOSA COUNTY RESOLUTION NO. 87-399

A RESOLUTION CERTIFYING THE ENVIRONMENTAL IMPACT REPORT FOR AND ADOPTION OF, THE WAWONA TOWN PLANNING AREA SPECIFIC PLAN.

The Board of Supervisors of Mariposa County, a political subdivision of the State of California, hereby resolves as follows:

WHEREAS, Government Code Section 65450 through 65457 provides for the development, adoption and implementation of Specific Plans as a means of implementing the General Plan; and

WHEREAS, the County of Mariposa has determined that a Specific Plan for the community of Wawona, known as the Wawona Town Planning Area, is necessary for the orderly development of the area and implementation of the Mariposa County General Plan; and

WHEREAS, such a Specific Plan and Environmental Impact Report has been prepared in accordance with the Government Code and Public Resources Code; and

WHEREAS, the Mariposa County Board of Supervisors and Planning Commission has held a public hearing on said EIR and Specific Plan in the community of Wawona to receive comments on the documents; and

WHEREAS, the Mariposa County Planning Commission considered and responded to the comments at continued public hearings, and has recommended approval of the plan, the EIR, and implementing ordinances and resolutions;

WHEREAS, the Board of Supervisors, at a subsequent, separately noticed hearing considered testimony on the Planning Commission's recommendations, and deliberated on all aspects of this matter and comments received;

BE IT THEREFORE RESOLVED that the Board of Supervisors hereby adopts the Wawona Town Planning Area Specific Plan Land Use Policies and Standards subject to the revisions in attached Exhibit 'A',

BE IT FURTHER RESOLVED that the Environmental Impact Report is certified as recommended by the Planning Commission and that the attached revisions do

1 not constitute significant changes and further environmental review.

2 PASSED AND ADOPTED by the Mariposa County Board of Supervisors this

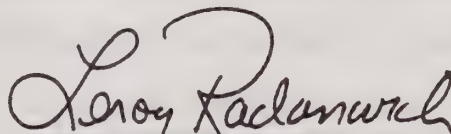
3 13th day of October , 1987 by the following vote;

4 AYES: BAGGETT, ERICKSON, RADANOVICH, TABER

5 NOES: NONE


6 ABSTAINED: NONE

7 EXCUSED: DALTON

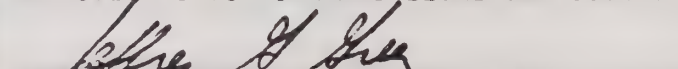
8 

9 LEROY RADANOVICH, Chairman  
Mariposa County Board of Supervisors

10 ATTEST:

11   
12 MARGIE WILLIAMS, Clerk of the Board

13 APPROVED AS TO FORM AND LEGAL SUFFICIENCY

14   
15 JEFFREY G. GREEN, County Counsel

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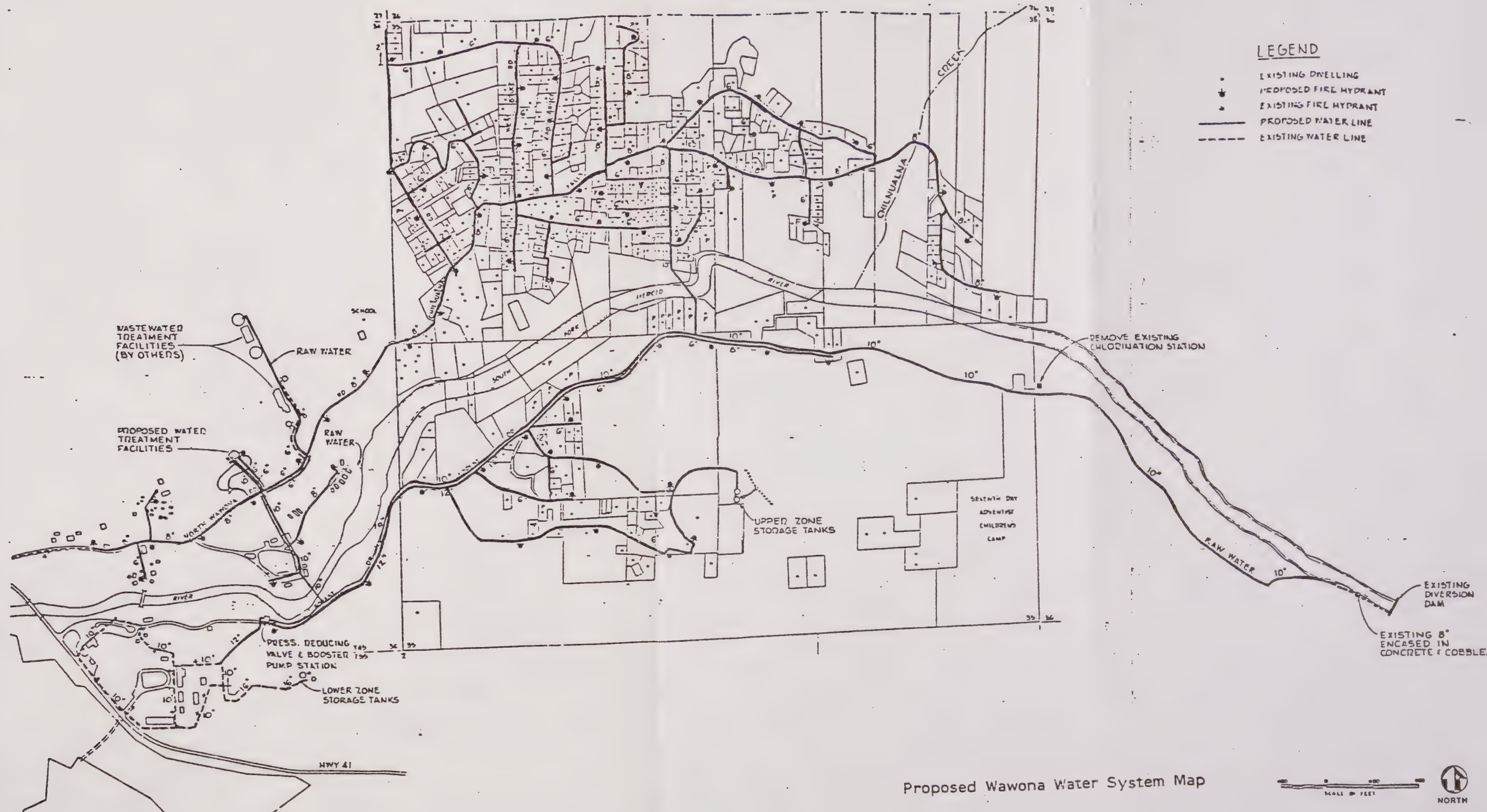
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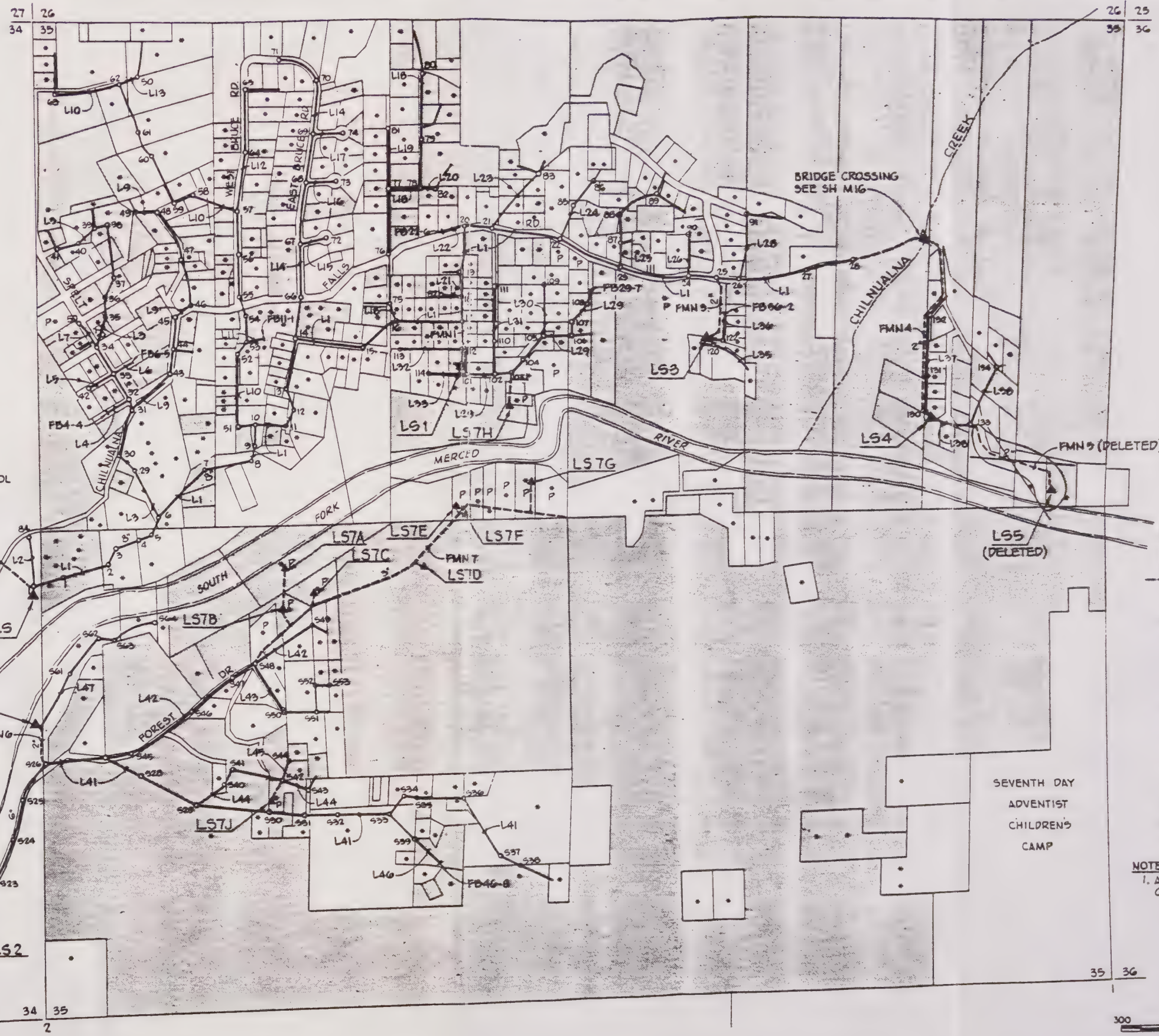
Environmental Assessment Reconstruct Water  
System Wawona Area, Yosemite National Park,  
California, U.S. Dept. of Interior, National  
Park Service





## SEWER LINE INDEX

LINE NO.	SUB SHEET NO.	LINE NO.	SUB SHEET NO.
L 1	C22, C23, C24, C25, C26	L30	C40
L 2	C21	L31	C41
L 3	C27, C28	L32	C39, C40
L 4	C28	L33	C39
L 5	C28	L34	NONE
L 6	C28	L35	C42
L 7	C27	L36	C42
L 8	C29	L37	C43
L 9	C29	L38	C42, C43, C44
L10	C30, C31	L39	C55
L11	C30	L40	C45
L12	C32	L41	C45, C46, C47, C48, C49
L13	C32	L42	C50
L14	C33, C34	L43	C51
L15	C34	L44	C52
L16	C34	L45	C52
L17	C34	L46	C52
L18	C35	L47	C38
L19	C36	L48	C54, C53
L20	C35	FMN1	C40
L21	C24	FMN2	C45
L22	C36	FMN3	C42
L23	C36	FMN4	C26, C43
L24	C37	<del>FMN5</del>	<del>DELETED</del>
L25	C37	FMN6	C46
L26	C38	FMN7	C54, C53
L27	NONE	SECT 35	
L28	C42	FMN	C21
L29	C39, C40		



## LEGEND (THIS SH ONLY)

- NATIONAL PARK SERVICE PARCEL WITHIN SECTION 35
- EXISTING SEWER & MANHOLE
- EXISTING DWELLING
- GRAVITY SEWER & MANHOLE
- AERIAL CROSSING OF STREAMBED
- EXISTING DWELLING WILL HAVE TO PUMP
- PROPOSED FORCE MAIN
- LIFT STATIONS
- LS 5 LIFT STATION & NUMBER
- L29 SEWER LINE NUMBER
- 13 MANHOLE NUMBER, 'S' PREFIX INDICATES SOUTH OF MERCED RIVER
- FB4-4 LINE NO. & FLUSHER BRANCH
- FMN3 SEWER FORCE MAIN NUMBER

## NOTES:

1. ALL LINES ARE 6 INCH IN SIZE UNLESS OTHERWISE SHOWN.

300 0 300 600  
SCALE OF FEET

DESIGNED:  
SPALDING  
DRAWN:  
RALLENS  
TECH. REVIEW:  
FAHLEN  
DATE:  
7 JUNE / 85

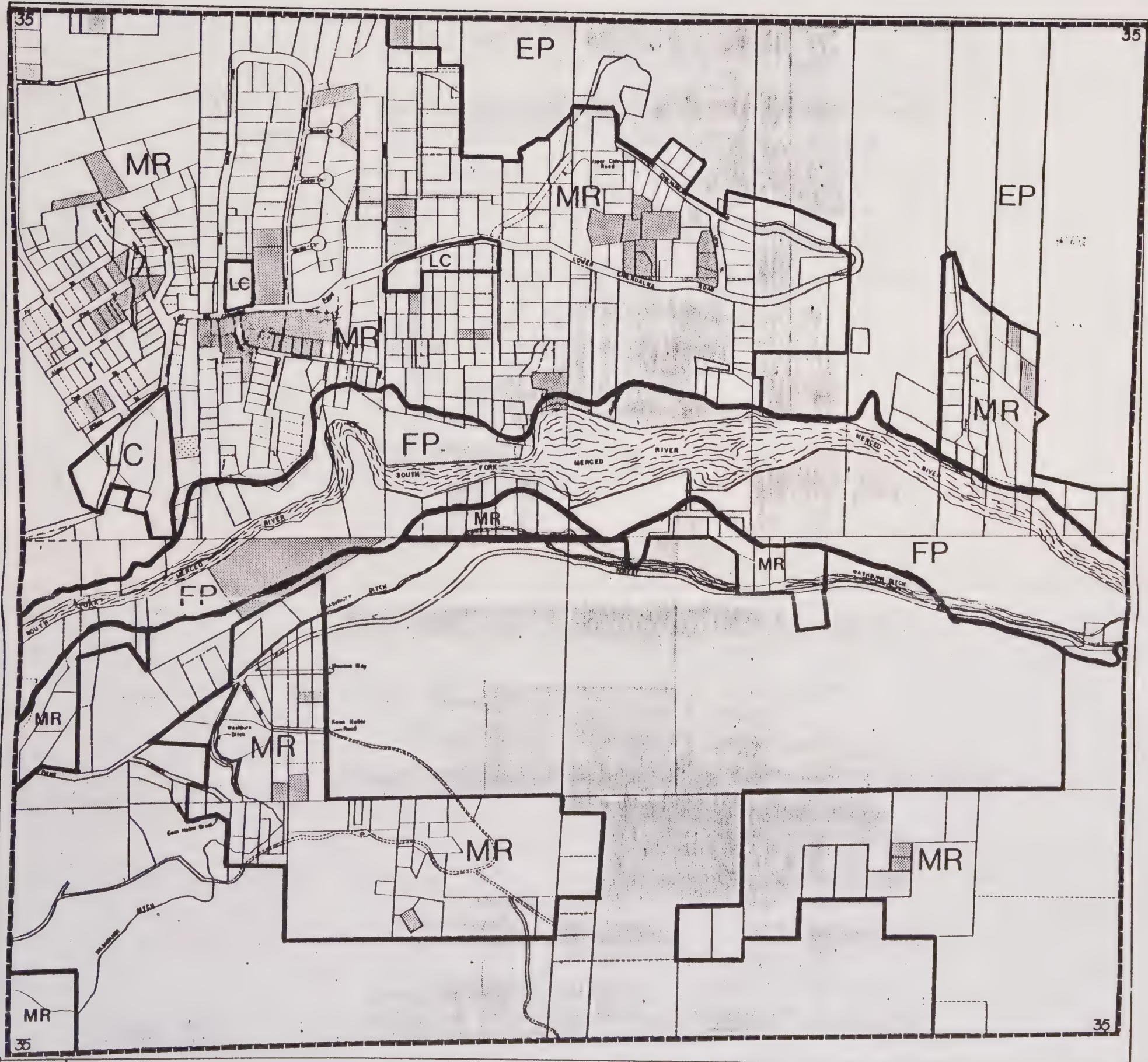
SUB SHEET NO.  
**C**  
**12**

TITLE OF SHEET  
**COLLECTION SYSTEM**  
**SECTION 35**  
**SEWER**

DRAWING NO.  
**104**  
**41,173A**  
PKG. NO.  
**262S**  
SHEET  
**18**  
OF **186**







**LEGEND**

Public Lands

**COUNTY SERVICE AREA**

2W 640 ac. +/-

**FLOOD PLAIN**

MR - Mountain Residential

LC - Limited Commercial

EP - Environmental Protection

FP - Floodplain

SCALE 1" = 100'

**HANOMA TOWN PLANNING AREA**

Official Land Use District Map

**MARIPOSA COUNTY**

**PLANNING DEPARTMENT**

DATE: 8/1/88

REVISION:

FILE NO: 1238

DESIGNED BY: JIM BRIDGES

EXHIBIT A







Wawona TPA LINE  
Section 35

Wawona TPA Line  
Section 35



**LEGEND**  
24.0 DISTANCE IN MILES ABOVE MOUTH  
CROSS SECTION LOCATION  
STATION NO.  
100 YEAR FLOOD  
FLOODWAY

SCALE IN FEET  
0 200 400 600  
CONTINUOUS INTERVAL 7 FEET

**EXHIBIT B**

DEPARTMENT OF THE ARMY  
SACRAMENTO DISTRICT, CORPS OF ENGINEERS  
SACRAMENTO, CALIFORNIA  
FLOOD HAZARD INFORMATION  
SOUTH FORK SACRAMENTO RIVER  
SACRAMENTO, CALIFORNIA  
FLOODWAY  
APRIL 1961



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